foods, the degrees of processing freedom for these foods are reduced. As a result, the processing challenges associated with producing tasty, nutritionally balanced foods are far greater than the challenges associated with producing conventional foods.

[0011] In summary, the need for a convenient, nutritionally balanced food composition, having an appealing taste system, has not been met. At best, the art teaches food components that must be combined with other materials, outside of their original packaging, to obtain a finished food; foods that require additional preparation, such as cooking or baking; and ready-to-eat foods that may offer, at best, only 2 of the 3 following desired food characteristics: balanced nutrition, convenience and taste. Thus, there remains a need for a convenient, nutritionally balanced food having a sufficient organoleptic appeal and appearance such that consumers will be motivated to replace unhealthy foods in their diets with said nutritionally balanced food.

[0012] Applicants have extensively researched the properties of nutritious food components, and carefully studied the eating habits and nutritional needs of consumers. As a result of Applicants' efforts, Applicants recognized the need to combine the benefits of taste, balanced nutrition and convenience. Surprisingly, despite numerous technical hurdles, Applicants have produced an array of foods that offer the above mentioned benefit package. Specific embodiments of the present invention include but are not limited to bars; potato crisps, extruded snacks, filled bars and crackers; dips; crackers and dip contained in separate compartments of a single package and cookies. In summary, since Applicants' invention combines balanced nutrition and convenience with an appealing taste system, and since consumers are more likely to consume foods that have an appealing taste system, consumers are now more likely to enjoy the health benefits that are obtained by consuming nutritious foods.

[0013] Thus, an object of the present invention is to provide a genus of convenient food compositions having balanced nutritional profiles and superior taste systems.

[0014] Another object of the present invention is to provide a subgenus of ready-to-eat snack food compositions having balanced nutritional profiles and superior taste systems.

[0015] Another object of the present invention is to provide a subgenus of ready-to-eat snack food compositions having balanced nutritional profiles, superior overall tastes and an appearance similar to or the same as snack foods.

[0016] Another object of this invention is to provide processes for making said genus and subgenera of food compositions.

[0017] Still another object of this invention is to provide methods of using said genus and subgenera of food compositions to improve the health of a mammal, particularly a human.

[0018] These and other objects will become apparent from the following detailed description.

SUMMARY OF THE INVENTION

[0019] In general, the present invention concerns a ready-to-eat food having, at a 60% confidence level, a lower taste value greater than −8.00; a water activity of less than 0.90; and comprising, on a single reference serving basis:

[0020] a.) an amino acid source that provides at least 19% of the total caloric value of said food;

[0021] b.) a fat that provides less than 30% of the total caloric value of said food; and

[0022] c.) a carbohydrate that provides the balance of the total caloric value of said food and at least about 2.5 grams of dietary fiber.

[0023] The present invention also generally concerns a method for evaluating the taste system of a food product.

DEFINITIONS

[0024] As used herein, the term "taste system" means the overall consumer acceptance of a food as a result of the combination of the food's organoleptic properties and appearance.

[0025] As used herein, the term "organoleptic properties" includes the flavor display, texture, and sound of a food that are experienced by the eater of said food when said food is eaten.

[0026] As used herein, the term "organoleptic appeal" refers to the appeal of a food, to the eater of said food, arising from the flavor display, texture and sound of said food.

[0027] As used herein, "taste" refers to the flavor display and texture of a food that are experienced by an eater of said food when said food is eaten.

[0028] As used herein, the term "relative taste score" refers to the difference between the sample mean overall taste score of a test product and the sample mean overall taste score of a reference.

[0029] As used herein, the "lower taste value", of a food is the value for the lower bound for the confidence interval about the relative taste score that is generated when a product is tested according to Applicant's Taste Test Protocol 1.1.

[0030] As used herein, the "upper taste value", of a food is the value for the upper bound for the confidence interval about the relative taste score that is generated when a product is tested according to Applicant's Taste Test Protocol 1.1.

[0031] As used herein, the term "nutritionally balanced", when used to describe a food, means that a single serving or reference serving of the food provides a nutritionally desirable level of fat, protein or amino acid source, and dietary fiber. Specifically, "nutritionally balanced" foods provide a relatively low level of digestible fat (i.e., 3 g or less per 100 kcal serving and/or 30% or less of total calories from fat), are a good source of dietary protein or other amino acid source (i.e., 5 g or more per 100 kcal serving and/or 19% or more of total calories from protein), and are a good source of dietary fiber (i.e., about 2.5 g or more of dietary fiber per reference serving and/or 100 kcal serving).

[0032] As used herein, the term "single serving" means any quantity of food sold, marketed, described, advertised, or implied to be equivalent to a single serving size or unit. For example, in the U.S., single serving sizes for foods are